

7th Grade	Math 7	Math 7 Honors
What standards are included?	Grade 7 Mathematics Standards of Learning <i>(The SOL test assesses Math 7 Standards.)</i>	Grade 8 Mathematics Standards of Learning + Extensions to the Prealgebra standards <i>(The SOL test assesses Prealgebra standards.)</i>
What are the most important topics?	<p><b>Practical Problems</b></p> <ul style="list-style-type: none"> <li>• Word problems that require proportional reasoning</li> <li>• Word problems with integers, fractions, decimals, percents, and ratios.</li> </ul> <p><b>Equations and Inequalities</b></p> <ul style="list-style-type: none"> <li>• Solve word problems with equations or inequalities</li> <li>• Solve equations with 2 steps</li> <li>• Solve inequalities with 1 or 2 steps</li> </ul> <p><b>Functions</b></p> <ul style="list-style-type: none"> <li>• Represent relationships that have 1 operation as word sentences, tables, graph, equations</li> </ul>	<p><b>Practical Problems</b></p> <ul style="list-style-type: none"> <li>• Multi-step word problems that include proportional reasoning, integers, fractions, decimals, percents, and ratios</li> </ul> <p><b>Equations and Inequalities</b></p> <ul style="list-style-type: none"> <li>• Solve word problems with equations or inequalities</li> <li>• Solve equations with 2-4 steps</li> <li>• Solve inequalities with 2-4 steps</li> </ul> <p><b>Functions</b></p> <ul style="list-style-type: none"> <li>• Represent relationships that have 2 operations as word sentences, tables, graph, equations</li> </ul> <p><b>Algebra Readiness Topics (Honors Extensions)</b> <i>Note: The inclusion of additional content means the content moves more quickly than Math 7.</i></p>
What mathematical habits are expected?	<p>The student will have opportunities to develop</p> <ul style="list-style-type: none"> <li>• Problem solving</li> <li>• Reasoning</li> <li>• Collaboration with others</li> <li>• Mathematical communication with words, pictures, numbers, and symbols</li> <li>• Perseverance when engaging in rigorous work</li> </ul>	<p>The skills required in Math 7 AND the student is</p> <ul style="list-style-type: none"> <li>• Enthusiastic for challenging math problems</li> <li>• Eager to solve problems 2 or more ways</li> <li>• Excited to explain thinking and ask others about their thinking</li> <li>• Seeking connections between topics in math class and with other classes</li> <li>• Willing to take initiative in rigorous work</li> </ul>
What courses are available in 8th grade?	<ul style="list-style-type: none"> <li>• Prealgebra</li> <li>• Algebra 1</li> <li>• Algebra 1 Honors</li> </ul>	<ul style="list-style-type: none"> <li>• Algebra 1</li> <li>• Algebra 1 Honors</li> </ul>

8th Grade	Prealgebra	Algebra 1	Algebra 1 Honors
What standards are included?	Grade 8 Mathematics Standards of Learning <i>(The SOL test assesses Prealgebra standards.)</i>	Algebra 1 Standards of Learning <i>(The SOL test assesses Algebra 1 standards, and students complete a final exam or culminating activity.)</i>	Algebra 1 Standards of Learning + Extensions <i>(The SOL test assesses Algebra 1 standards, and students complete a final exam or culminating activity.)</i>
What are some of the main topics?	<p><b>Practical Problems</b></p> <ul style="list-style-type: none"> <li>Multi-step word problems with integers, fractions, decimals, percents, and ratios</li> </ul> <p><b>Equations and Inequalities</b></p> <ul style="list-style-type: none"> <li>Word problems</li> <li>Equations with 2-4 steps</li> <li>Inequalities with 2-4 steps</li> </ul> <p><b>Functions</b></p> <ul style="list-style-type: none"> <li>Represent relationships with 2 operations as word sentences, tables, graph, equations</li> </ul>	<p><b>Model and Solve Practical Problems</b></p> <ul style="list-style-type: none"> <li>Linear equations and inequalities; quadratic equations</li> <li>Systems of equations and inequalities</li> <li>Linear and quadratic functions</li> </ul> <p><b>Expressions and Operations</b></p> <ul style="list-style-type: none"> <li>Laws of exponents</li> <li>Radicals</li> <li>Polynomials</li> </ul>	<p><b>Model and Solve Practical Problems</b></p> <ul style="list-style-type: none"> <li>Linear equations and inequalities; quadratic equations</li> <li>Systems of equations and inequalities</li> <li>Linear and quadratic functions</li> </ul> <p><b>Expressions and Operations</b></p> <ul style="list-style-type: none"> <li>Laws of exponents</li> <li>Radicals</li> <li>Polynomials</li> </ul> <p><b>Honors Extensions</b> <i>(The inclusion of additional content means the content moves more quickly than Algebra 1.)</i></p>
What mathematical habits are expected?	<p>The student will have opportunities to develop</p> <ul style="list-style-type: none"> <li>Problem solving</li> <li>Reasoning</li> <li>Collaboration with others</li> <li>Mathematical communication with words, pictures, numbers, and symbols</li> <li>Perseverance when engaging in rigorous work</li> </ul>	<p>The student will have opportunities to develop</p> <ul style="list-style-type: none"> <li>Problem solving</li> <li>Reasoning</li> <li>Collaboration with others</li> <li>Mathematical communication with words, pictures, numbers, and symbols</li> <li>Perseverance when engaging in rigorous work</li> <li>Familiarity with graphing calculator as a tool for problem solving</li> </ul>	<p>The skills required in Algebra 1 AND the student is</p> <ul style="list-style-type: none"> <li>Enthusiastic for challenging math problems</li> <li>Eager to solve problems 2 or more ways</li> <li>Excited to explain thinking and ask others about their thinking</li> <li>Seeking connections between topics in math class and with other classes</li> <li>Willing to take initiative in rigorous work</li> <li>Willing to demonstrate fluency of mathematical ideas without a calculator</li> </ul>

What type of credit is earned?	Prealgebra is a middle school course.	Algebra 1 is a high school credit course.	Algebra 1 Honors is a high school credit course with an additional 0.5 weight.
What courses are available beyond this year?	<p><b>9th Grade:</b> Algebra 1 or Algebra 1 HN</p> <p><b>By End of High School:</b> Precalculus or Math Elective</p>	<p><b>9th Grade:</b> Geometry or Geometry Honors</p> <p><b>By End of High School:</b> AP Calculus or IB Year 2 courses</p> <p><b>In Other Content Areas</b> Honors Chemistry (<i>must be co-enrolled in Algebra 2 by 10th grade</i>)</p>	<p><b>9th Grade:</b> Geometry or Geometry Honors</p> <p><b>By End of High School:</b> AP Calculus or IB Year 2 courses</p> <p><b>In Other Content Areas</b> Honors Chemistry (<i>must be co-enrolled in Algebra 2 by 10th grade</i>)</p>